

# INTERNATIONAL SEARCH REPORT

PCT/GB2004/004517

**A. CLASSIFICATION OF SUBJECT MATTER**  
IPC 7 B65G47/90

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 B65G

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, PAJ

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 99/00306 A (GOLDSTEIN, YEHIEL) 7 January 1999 (1999-01-07)	1-24, 33-46, 60-91 30-32
Y	page 2, line 18 - page 11, line 13; figures 1-4	
Y	GB 2 378 172 A (* TICKHILL ENGINEERING COMPANY LIMITED) 5 February 2003 (2003-02-05) abstract; figure 4	30-32
X	PATENT ABSTRACTS OF JAPAN vol. 006, no. 256 (M-179), 15 December 1982 (1982-12-15) & JP 57 151533 A (OKURA YUSOKI KK), 18 September 1982 (1982-09-18) abstract	1
	----- -/-	

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

### \* Special categories of cited documents:

- \*A\* document defining the general state of the art which is not considered to be of particular relevance
- \*E\* earlier document but published on or after the international filing date
- \*L\* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- \*O\* document referring to an oral disclosure, use, exhibition or other means
- \*P\* document published prior to the international filing date but later than the priority date claimed

- \*T\* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- \*X\* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- \*Y\* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- \*Z\* document member of the same patent family

Date of the actual completion of the international search

7 February 2005

Date of mailing of the international search report

15/02/2005

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2  
NL - 2280 HV Rijswijk  
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,  
Fax (+31-70) 340-3016

Authorized officer

Kock, S

# INTERNATIONAL SEARCH REPORT

PCT/GB2004/004517

## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 4 026 421 A (LOTZ ET AL) 31 May 1977 (1977-05-31) abstract; figures 1-3 -----	1
A	EP 0 371 687 A (SCHNEIDER J M INC; THURNE ENGINEERING CO LTD) 6 June 1990 (1990-06-06) abstract -----	1
A	US R E33 917 E (LAPEYRE) 5 May 1992 (1992-05-05) abstract -----	1
A	GB 2 161 294 A (* MIMASU SEMICONDUCTOR INDUSTRY COMPANY LIMITED) 8 January 1986 (1986-01-08) abstract; figure 1 -----	1

# INTERNATIONAL SEARCH REPORT

PCT/GB2004/004517

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
WO 9900306	A	07-01-1999	AU 7928798 A WO 9900306 A2	19-01-1999 07-01-1999
GB 2378172	A	05-02-2003	NONE	
JP 57151533	A	18-09-1982	NONE	
US 4026421	A	31-05-1977	NONE	
EP 0371687	A	06-06-1990	CA 1314912 C AT 87561 T DE 68905768 D1 DE 68905768 T2 EP 0371687 A1 JP 2239023 A US 5018338 A	23-03-1993 15-04-1993 06-05-1993 29-07-1993 06-06-1990 21-09-1990 28-05-1991
US RE33917	E	05-05-1992	US 4748724 A DE 3819222 A1 FR 2632158 A1 GB 2218615 A ,B US 4847954 A	07-06-1988 07-12-1989 08-12-1989 22-11-1989 18-07-1989
GB 2161294	A	08-01-1986	JP 1282697 C JP 59140866 A JP 60006164 B	27-09-1985 13-08-1984 16-02-1985